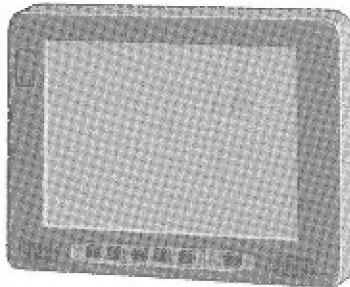


Panasonic®

LCD Monitor

OPERATING INSTRUCTIONS

Model No.

CF-VDL01

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WARNING

A LCD monitor may be installed in a motor vehicle and visible to the driver if the LCD monitor is used for vehicle information, system control, rear or side observation or navigation. If the LCD monitor is used for television reception or video or DVD play, the LCD monitor should be installed so that these features will only function when the parking brake is applied. A LCD monitor used for television reception, video or DVD play or text data that operates when the parking break is not applied must be installed to the rear of the driver's seat where it will not be visible, directly or indirectly, to the operator of the motor vehicle. This statement should be reviewed with each state to allow for the safe and lawful use of this product while operating a vehicle.

Car Directive Compliance Notice

This LCD monitor is in conformance with the requirements of the European Council Directive 95/54/EC adapting to technical progress 72/245/EEC.

e-mark certificate No. e13*72/245*95/54*0550*00

Use This Product Safely

WARNING

To avoid risk of serious injury or possible violation of laws, make sure that the monitor is placed visible to the driver for no other purpose than navigational or with the use of rear view camera only.

When Driving

- Ⓐ The driver must not operate the LCD monitor.
(Operating the LCD monitor while driving is a distraction and may lead to an accident.)
- Ⓑ As a safety factor, driving with the television, video or DVD player is prohibited.
- Ⓒ Keep the unit at an appropriate sound level. Driving with the sound at a level that prevents you from hearing sounds outside and around the car may cause an accident.

CAUTION

When Car Washing

Do not expose the LCD monitor to water or excessive moisture. This could cause electrical shorts, fire or other damage.

When Parked

- Ⓐ Parking in direct sunlight can produce very high temperatures inside your car. Let the interior of the car cool down before switching the unit on.
- Ⓑ Do not watch the LCD monitor with the engine off. It will consume battery power and may prevent the engine from starting.

Use Panasonic Technical Support

- Ⓐ Do not attempt to disassemble or adjust this precision product. Contact Panasonic Technical Support.

For Installation

- Be sure to install the LCD monitor in a position that does not obstruct the driver's vision.
- If the LCD monitor has been installed for the rear seat passengers, they must be careful to prevent injury by hitting their heads on the LCD monitor in case of an accident.
- Do not expose the LCD monitor to direct sunlight or excessive heat.
- Be sure not to install the LCD monitor in a location at which it is exposed to water, hot air such as near heater duct, or where it may stepped on.
- Do not install the unit in an area where it would obstruct the operation of an air bag.
- Ask a trained technician to install the unit. Installation and wiring require training and experience.

To be safe, ask the sales outlet where you purchased the unit to perform the installation.

When Operating

- Make sure the LCD monitor is firmly secured and protected from strong impact, because this may cause a malfunction or possible fire.

[Illustration in this manual]

Windows 95 indicates Microsoft® Windows® 95 Operating System.

Windows 98 indicates Microsoft® Windows® 98 Operating System.

Windows NT indicates Microsoft® Windows NT® Operating System.

Windows 2000 indicates Microsoft® Windows® 2000 Professional Operating System.

Microsoft®, MS-DOS® and Windows® are registered trademarks of Microsoft Corporation in the United States and/or other countries.

Introduction

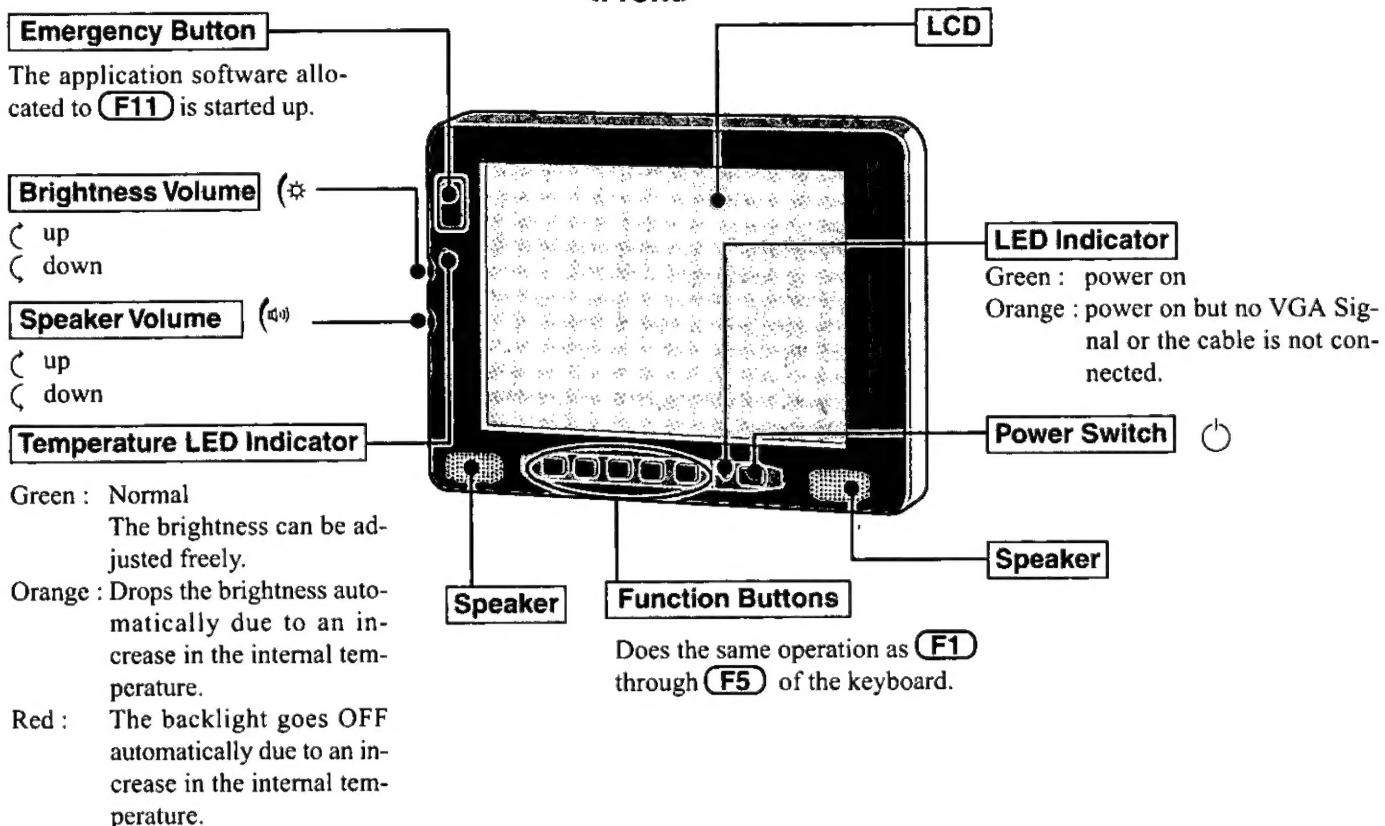
Thank you for purchasing the LCD Monitor for the Panasonic CF-17/M34 notebook computer series.

This LCD monitor features a touchscreen function, which makes computer operation possible by simply touching the surface of the LCD monitor and pressing buttons – even when the computer is not being held.

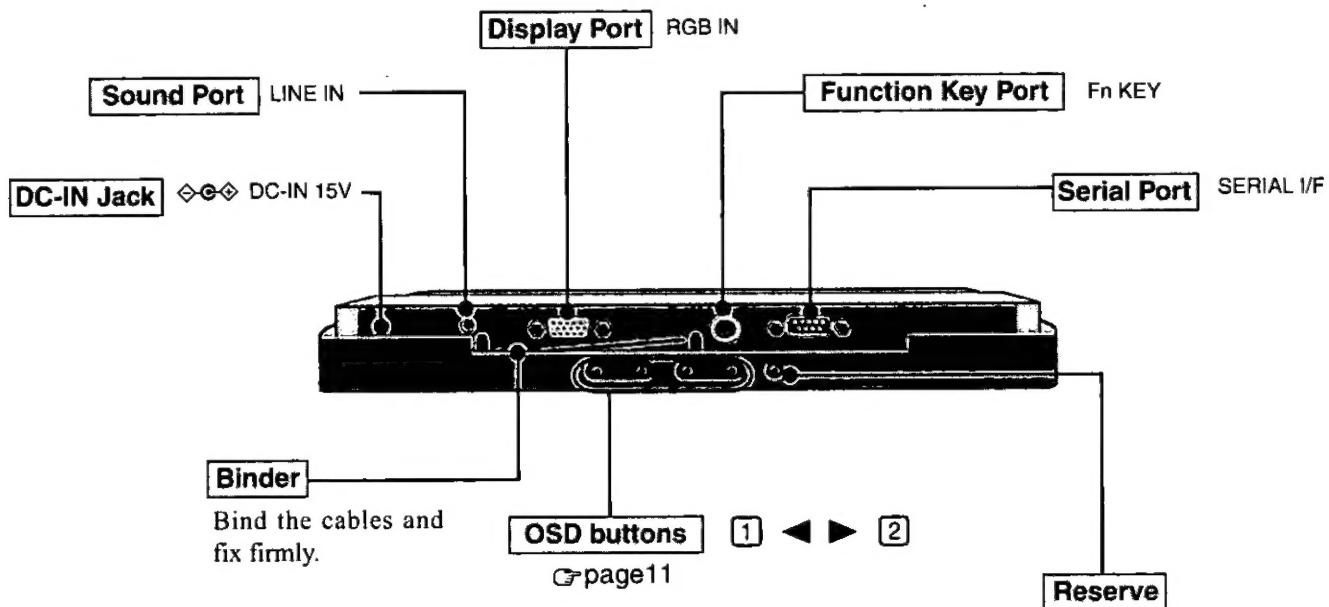
LCD Monitor 1	Operating Instructions .. 1	Keyboard 1	RGB Cable 1
			
Serial Cable 1	Sound Cable 1	PS/2 Cable 1	Function Cable 1
			

Names and Functions of Parts

<Front>



<Bottom>

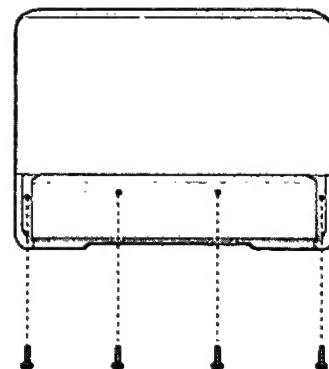


Do not have anyone except an authorized repairperson push this button.

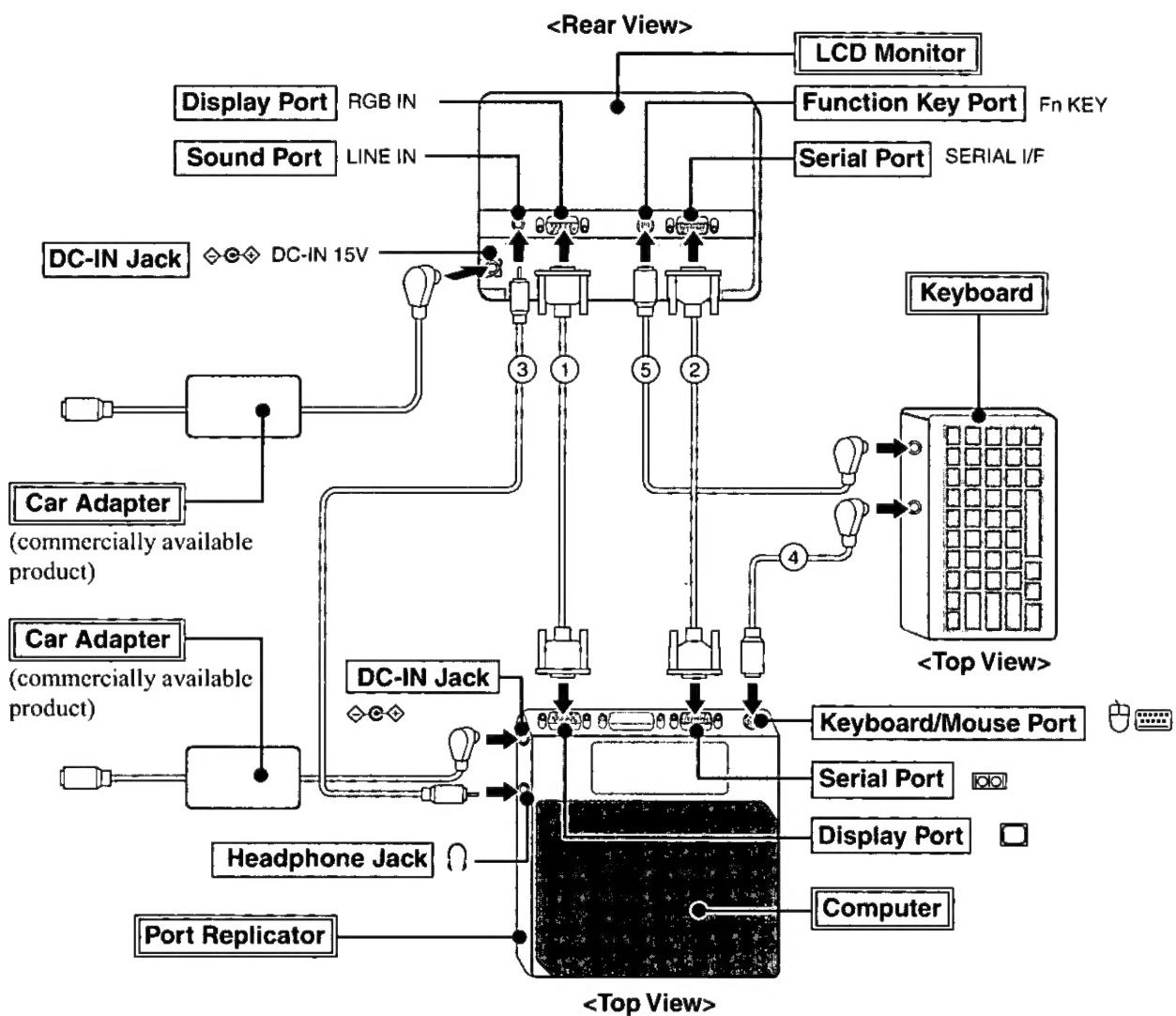
Mounting the LCD Monitor

1 Connect your computer to the port replicator
(Operating Instructions of the port replicator)

2 Remove the cover of the LCD Monitor
Remove the four screws, and remove the cover.



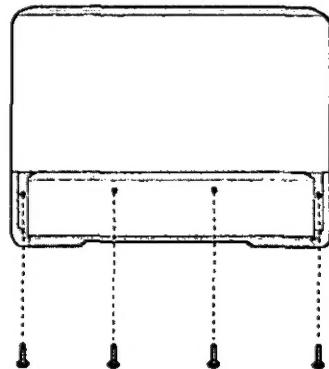
3 Connect the LCD Monitor to your computer (through the port replicator) and stand-alone keyboard via the connection cables (included)



- ① RGB cable
- ② Serial cable
- ③ Sound cable
- ④ PS/2 cable
- ⑤ Function cable

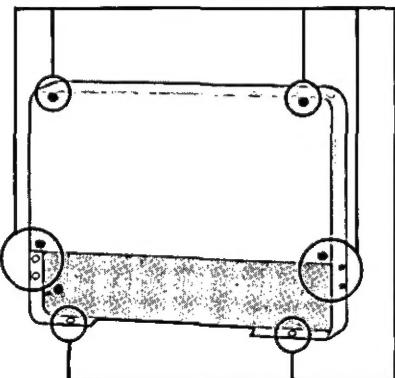
4 Attach the cover of the LCD Monitor

Attach the four screws.



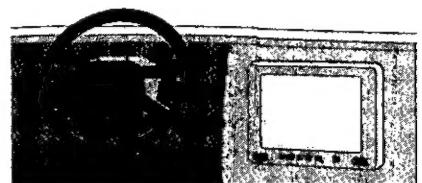
5 Mount the LCD Monitor

Use these M4 screw holes to mount the LCD Monitor.



CAUTION

- When installing the LCD monitor, locate the monitor under the dashboard as shown in the figure to prevent the monitor from interrupting the sight of the driver and to prevent the monitor from being hit by direct sunlight.
- Do not expose the computer to direct sunlight or excessive heat.



Starting Up/Shutting Down

Starting Up

1 Turn the LCD Monitor on

Press the power switch.

2 Turn your computer on (☞Operating Instructions of the computer)

3 Select your application

You are able to start working on your computer.

Shutting Down (power off your computer)

This procedure is shutting down without using the suspend or hibernation function.

(☞ Reference Manual of the computer "Suspend/Hibernation Functions")

CAUTION

Do not press the power switch of the LCD monitor before shutting down Windows.

1 Display the shut down screen

After saving important data and closing each application, select [Shut Down] from the [Start] menu.

2 Confirm shut down

Windows 95 **Windows 98** **Windows 2000**

Select [OK] after selecting [Shut down].

Your computer will power off automatically.

(In the OFF state, if you are not recharging your battery pack or if the pack is fully charged, your computer consumes approximately 1.5 W.)

Windows NT

Select [OK] after selecting [Shut down the computer].

Your computer will power off automatically.

(In the OFF state, if you are not recharging your battery pack or if the pack is fully charged, your computer consumes approximately 1.5 W.)

3 Turn the LCD Monitor off

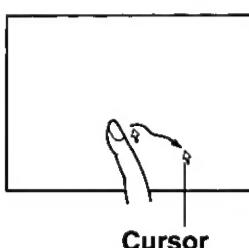
Press the power switch.

The LCD Monitor will not turn off until the computer is shut down completely.

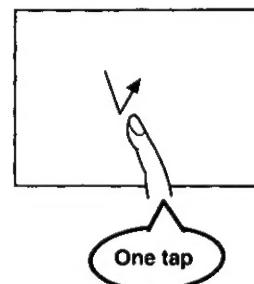
Touchscreen

The LCD Monitor is equipped with a touchscreen function allowing you to perform the same operations as the touch pad or mouse by touching the surface of the display with your finger. (The operation settings can be changed in [Start] - [Programs] - [Updd] - [Settings].)

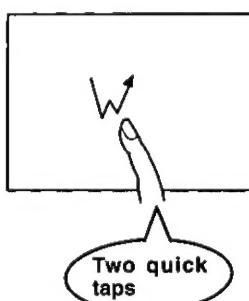
● Moving the cursor



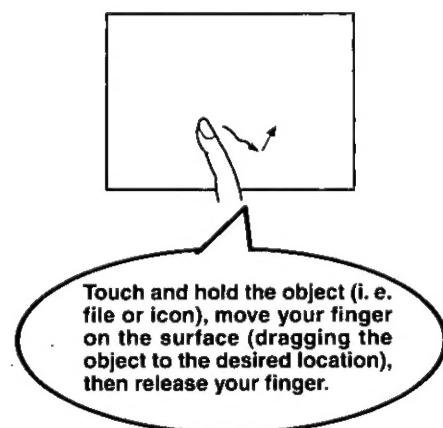
● Clicking



● Double-clicking



● Dragging



CAUTION

- The touchscreen function can not be used in the MS-DOS mode and when using the full screen in [MS-DOS prompt].
- When the operation of panning (only LCD) is performed while the screen resolution is set to [1024 x 768 dots] or more, the touchscreen function will not work properly.
- If a change is made to the screen resolution, or the cursor can not be pointed correctly with your finger, be sure to perform calibration in the [Start]-[Programs]-[Updd]-[Calibrate] menu.

Handling the Touchscreen

- Do not place any object on the surface or press down forcefully with sharp-pointed objects (e.g., nails), hard objects that can leave marks (e.g., pencils and ball point pens).
- Do not apply pressure within 5 mm of the perimeter of the display panel. The cursor may move to the edge of the display.
- Do not operate the computer when such things as dust are on the screen, or allow contact with substances that could dirty the touchscreen, such as oil. The cursor may not work properly in such cases.
- When the touchscreen becomes dirty:
Use a dry soft cloth such as a gauze to clean the dirty areas.
Do not use benzene, thinner, or disinfectant-type alcohol.

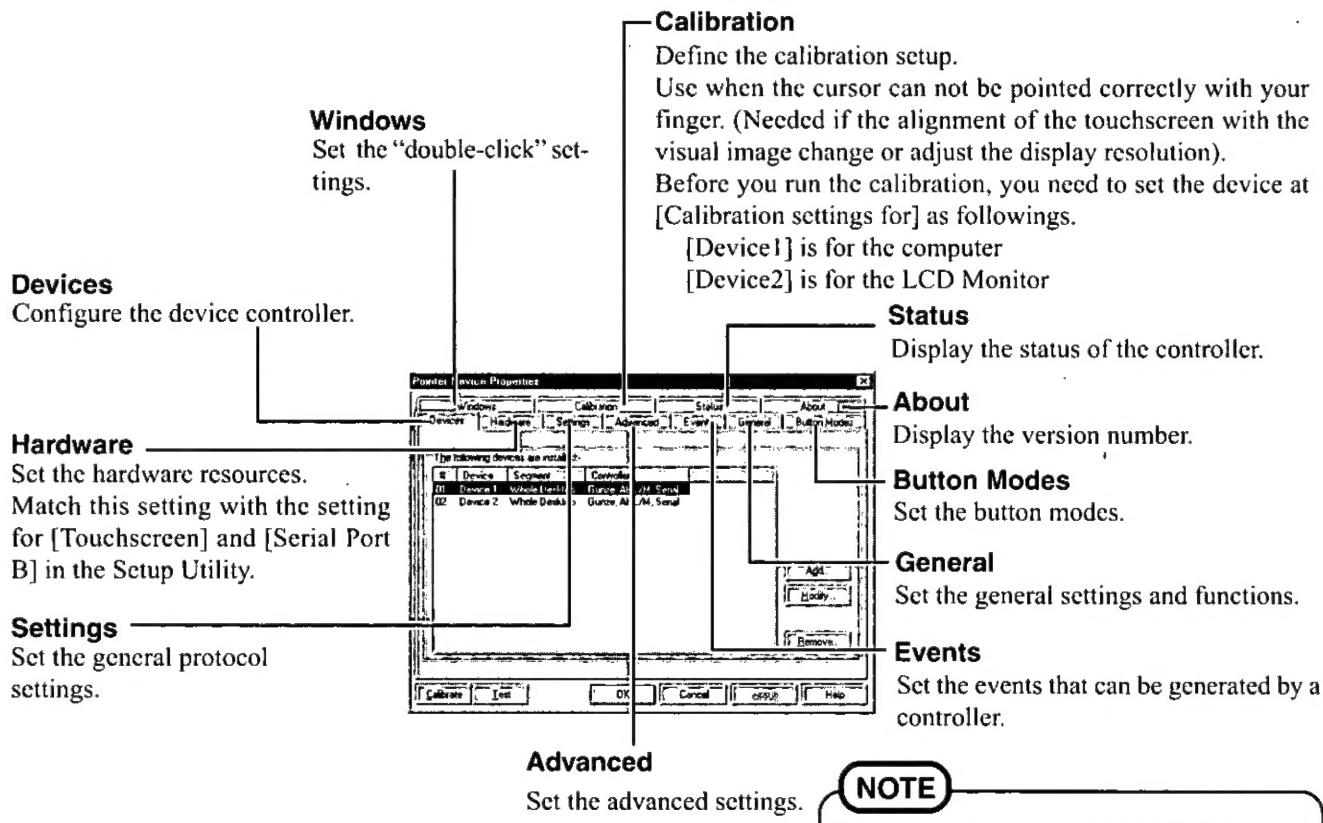
Touchscreen

Configuring the Touchscreen

When needed, the touchscreen can be configured using the following steps.

1 Select from the taskbar or select [Settings] from [Start] - [Programs] - [Updd]

The following screen will appear.



2 Make necessary changes

3 Click [OK]

NOTE

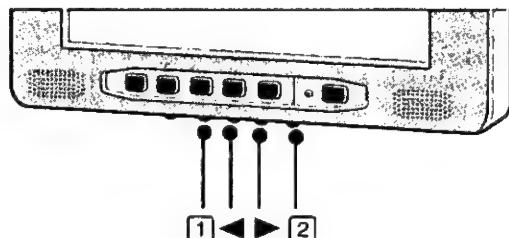
- Adjustments can be made when double-click operations are assumed by the computer although single-click operations are intended, by clicking [Windows] from the display shown above and decreasing the value for [Time] in [Double Click Settings].
- It is also possible to change the double click speed for [Buttons] in [Start] - [Settings] - [Control Panel] - [Mouse]. It is important to note that when the double click speed for [Mouse] is changed, the double click time for [Windows] is also changed. However, the double click time for [Windows] and [Mouse] returns to its value before the change when the computer is restarted.
- Immediately run [Calibrate] when the number of points of calibration is changed.

Adjusting the LCD Monitor

Fine adjustment on the display size, position, and so on, may be necessary since the signal timing differs depending on the computer.

1 Press ①

The OSD main menu is displayed.



<OSD main menu>



ICON	FUNCTION	DESCRIPTION
	Brightness	Adjust brightness of selected RGB channel
	Contrast	Adjust contrast of selected RGB channel
	Color	Set RGB color temperature
	Position	Move input image capture window
	Image	Adjust clock and phase
	Auto Config	Automatically optimize the image quality
	Miscellaneous	Miscellaneous settings
	Information	Display RGB input signal information

2 Select the icon by pressing ▲ or ▼, then press ②

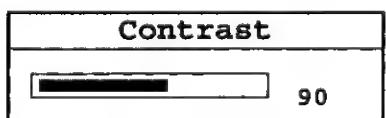
● (Brightness)



The Brightness menu item is used to adjust the brightness of the selected RGB channel. A slider indicating the current brightness value is displayed. The adjustment range is 0 to 63.

Adjust by pressing ▲ or ▼, then press ②. (If you want to cancel, press ①)

● (Contrast)



The Contrast menu item is used to adjust the contrast of the selected RGB channel. A slider indicates the current contrast value. The range of adjustment is 0 to 255. Adjust by pressing ▲ or ▼, then press ②. (If you want to cancel, press ①)

Adjusting the LCD Monitor

● (Color)

Color
Auto Balance
RGB
Color Temperature

The Color menu is used to adjust the brightness of Red, Green, Blue, or all color channels.

Select the item by pressing **◀** or **▶**, then press **[2]**.

<Auto Balance>

Select **[2]**, the color is adjusted automatically.

<RGB>

The sub-menu is displayed.

Select the item by pressing **◀** or **▶**, then press **[2]**.

The sub-menu is displayed.

Adjust by pressing **◀** or **▶**, then press **[2]**. (If you want to cancel, press **[1]**)

<Color Temperature>

The sub-menu is displayed.

Select the item by pressing **◀** or **▶**, then press **[2]**.

The sub-menu is displayed.

Adjust by pressing **◀** or **▶**, then press **[2]**. (If you want to cancel, press **[1]**)

● (Position)

Position
H-Position
V-Position
Auto Center

The Position menu allows the adjustment of image position in Analog input mode.

Select the item by pressing **◀** or **▶**, then press **[2]**.

<H-Position>

H-position is used to adjust the horizontal image position manually. A slider and the current value are displayed. The adjustment range is 0 to 127.

Adjust by pressing **◀** or **▶**, then press **[2]**. (If you want to cancel, press **[1]**)

<V-Position>

V-position is used to adjust the vertical image position manually. A slider and the current value are displayed. The maximum value for Vertical Position is to 0 to 47.

Adjust by pressing **◀** or **▶**, then press **[2]**. (If you want to cancel, press **[1]**)

<Auto Center>

Select **[2]**, the position is adjusted automatically.

● (Image)

Image
Phase
Clock
Auto Phase

The image menu allows the adjustment of ADC clock and phase in Analog input mode. In Digital, Video, and S-Video input modes, clock and phase are fixed.

Select the item by pressing **◀** or **▶**, then press **[2]**.

<Phase>

Phase adjustment is used to adjust the ADC sample pixel clock. A slider and the current value are displayed. The adjustment range is 0 to 31, representing 0-360 degrees. Adjust by pressing **◀** or **▶**, then press **2**. (If you want to cancel, press **1**)

<Clock>

Clock adjustment is used to adjust the number of clocks per line (samples per line). A slider and the current value are displayed. The range of clock adjustment is ± 30 pixels from the VESA standard.

Adjust by pressing **◀** or **▶**, then press **2**. (If you want to cancel, press **1**)

<Auto Phase>

Select **2**, phase is adjusted automatically.

● (Auto Configuration)

Auto Configuration	
Yes	No

Auto Configuration automatically adjusts image position, clock, and phase. A confirmation box is displayed to confirm the user selection. The default selection in the box is "Yes", highlighted by a green bar. If the "No" is selected, the main menu is re-opened and no changes are saved.

● (Miscellaneous)

Miscellaneous
INIT NVRam
OSD Timeout
OSD Position

Select the item by pressing **◀** or **▶**, then press **2**.

<INIT NVRam>

A confirmation box is displayed to confirm the user selection. The default selection is "Yes", and is highlighted by a green bar. If **1** is pressed, the previous menu is displayed.

<OSD Timeout>

OSD Timeout is used to set the OSD idle time-out. If no active action, key press or automatic configuration occurs for the defined period, the OSD menu is closed. There are four OSD time-out values available.

Select the item by pressing **◀** or **▶**, then press **2**.

<OSD Position>

The sub-menu is displayed.

Select the item by pressing **◀** or **▶**, then press **2**.

The sub-menu is displayed.

Adjust by pressing **◀** or **▶**, then press **2**. (If you want to cancel, press **1**)

● (Information)

SYSTEM INFO
Version:
V-Freq-:
H-Freq-:
PixelCLK:
Width:
Height:

This menu is used to display information about the system. The OSD window is displayed for 60 seconds after which control returns to main menu. If **1** is pressed, the information window is closed and the main menu is displayed.

3 Press **1**

The OSD main menu disappears.

Troubleshooting

When a problem occurs, refer to this page. If a problem appears to be related to a software application, read the software related manual. If you still cannot troubleshoot the problem, contact Panasonic Technical Support.

No display after powering on	<ul style="list-style-type: none">Check the cable connection for the car adapter.Check the cable connection to the LCD Monitor.Check the brightness of the LCD Monitor.Has the computer been set to the power-saving mode? To resume operation of your computer from the condition the power of the display is OFF (for energy conservation purposes), press any key. (like Ctrl) Set the power-saving mode to disable. Windows 95 Windows NT Set [ECO Mode Timeout] and [Hibernation Timeout]/[Suspend Timeout] under [AC Adapter Operation] to [Disable].Windows 98 Set [System Standby] and [Turn off monitor] in [Start]-[Settings]-[Control Panel]-[Power Management]-[Power Schemes] to [Never].Windows 2000 Set [Turn off monitor], [System Standby], and [System hibernates] in [Start]-[Settings]-[Control Panel]-[Power Options] to [Never].If the LCD of the computer is ON, press Fn + F3, and set [Display] in the Setup Utility to [External Monitor] or [Simultaneous].
An afterimage appears (i.e., green, red, and blue dots remain on the display) or there are dots not displaying the correct colors.	If an image is displayed for a prolonged period of time, an afterimage may appear. This is not a malfunction. The afterimage will disappear when a different screen is displayed. High-precision and advanced technologies are necessary in the production of color liquid crystal displays (color LCDs). Therefore, if 0.002% or less of the picture elements either fail to light or remain constantly lit (that is, more than 99.998% of elements are functioning properly), no defect is considered to exist.
The sound is not heard	<ul style="list-style-type: none">Check the cable connection to the LCD Monitor.Check the volume setting of the computer.
"Cable not connected" is displayed	Check the cable connection to the LCD Monitor.
"Input Not Supported" is displayed	The mode not supported is has been selected. Set the display mode to 640 × 480 60 Hz or 800 × 600 60 Hz.
Unable to input by touching the display	<ul style="list-style-type: none">Has the Setup Utility been used to set [Touchscreen] to [2E8/IRQ7] for the computer and [Serial Port B] to [2F8/IRQ3] for the LCD Monitor?Confirm that the setting for resource in [Start]-[Programs]-[Updd]-[Settings]-[Hardware] is [2E8/IRQ7] for the computer and [2F8/IRQ3]* for the LCD Monitor.Check the cable connection to the LCD Monitor. <p>*If the serial port A is used for LCD Monitor, set [3F8/IRQ4].</p>
The display is affected	<ul style="list-style-type: none">The mode not supported has been selected. Set the display mode to 640 × 480 60 Hz or 800 × 600 60 Hz.Check the cable connection to the LCD Monitor.The display appears distorted since the MS-DOS mode, XGA display, and refresh rates over 60Hz are not supported.
The display no longer displays properly	Select ETC from the OSD main menu, then select [INIT NVRam], then press 2 . Select "Yes", then press 2 . <i>Go page 13</i>

Specifications

Model No.	CF-VDL01				
Input Interface	Analog RGB Signal				
LCD Type	10.4 type				
Display Area	211.2 mm X 158.4 mm				
Resolution	800 X 600 dots				
Color	256 K ^{*1} (simulated 16.7 M)				
Pixel Pitch	0.264 mm X 0.264 mm				
Brightness	1000 cd/m ²				
Display Modes	VGA	640 X 480	60 Hz		
	SVGA	800 X 600	60 Hz		
Touchscreen	Resistive				
Interface	Display Port	Dsub 15-pin female			
	Serial Port	Dsub 9-pin male			
	Line IN	Miniature jack, 3.5 DIA			
	Function Key	F1~F5, Emergency (F11)			
Speaker	Stereo Speaker (built in)				
DC-IN	Input	DC 15 V, 2.6 A ^{*2}			
Power Consumption	40 W				
Physical Dimensions (W X H X D)	280 mm X 224 mm X 30 mm {11.0 " X 8.8 " X 1.2 "}				
Weight	Approx. 2.1 kg {4.6 lb.}				
Environment	Temperature	5 °C to 35 °C {41 °F to 95 °F}			
	Humidity	10 % to 90 % RH (No condensation)			

^{*1} 1 K=1024

^{*2} DC input Voltage Range 14.25 V~15.75 V

DC input Current 2.6 A or more.

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